

CRANIA TUBERCULATA NILSSON, 1826 (BRACHIOPODA):
PROPOSED CONSERVATION BY SUPPRESSION OF
CRANIOLITES BRATTENBURGICUS SCHLOTHEIM, 1820.
Z.N.(S.)2551

By C. H. C. Brunton (*Department of Palaeontology, British Museum (Natural History), London SW7 5BD*) and Daphne E. Lee (*Geology Department, University of Otago, P.O. Box 56, Dunedin, New Zealand*)

This is a case for the suppression of an ill-defined senior name, *Craniolites brattenburgicus* Schlotheim, 1820, on the ground that the slightly younger and much better described synonym *Crania tuberculata* Nilsson, 1826, has long been accepted.

2. Schlotheim (1820, p. 246) figured, without a formal description, *Craniolites brattenburgicus* from limestones and reworked limestones at Copenhagen (the late Danian Saltholm limestone at South Harbour, Copenhagen yields this species). His figures (pl. 28, fig. 5a, b) were poor and of little value in species recognition. Schlotheim appears to have erected the genus as one within his own concept of an *Anomia* group (*Anomia* is now a molluscan genus) ignoring the creation of *Crania* by Retzius in 1781, or as an (unstated) replacement for Retzius' name. In his discussion of *C. brattenburgicus*, a name very close to *Crania brattensburgensis* Retzius, 1781 [a junior subjective synonym of *Anomia craniolaris* Linnaeus, 1758, the type species of *Crania*, as designated by Schmidt in 1818], Schlotheim (1820, p. 249) contrasted his species with what he called 'Craniol. craniolaris', but he did not mention the Retzius specific name.

3. Nilsson (1826, p. 326, emended 1827, p. 37) described *Crania tuberculata* as a new species from hard Danian limestones in Scania, south Sweden. The species was well described and illustrated (1826, pl. 2, figs 3a-c and 1827, pl. 3, figs 10A-C).

4. The first review of *Crania* species was by Hoeninghaus (1828), who accepted Nilsson's *C. tuberculata* in the place of Schlotheim's species name. Hoeninghaus recorded the species from Sweden and from limestone blocks in a sandpit near Copenhagen. He repeated and added to Nilsson's description and provided good illustrations (figs 7a-d).

5. In 1885 Lundgren suggested (p. 27) that *brattenburgicus* Schlotheim was a mis-spelling for *brattenburgensis* Retzius, and rejected Schlotheim's name.

6. Carlsson (1958), describing the Cretaceous *Crania* species from Sweden, followed a mention in a synonymy list by Wind (1953, p. 79) and on p. 27 exhumed the name *C. brattenburgicus*. Schlotheim's name was also used by Kruytzer & Meijer (1958, p. 135) for specimens from Holland, but later Kruytzer (1969, p. 14) rejected Schlotheim's name in favour of *Crania tuberculata* Nilsson, which had been designated as type species of *Danocrania* (see 7 below).

7. Kongiel (1958, p. 17) designated some late Danian beds in Poland as being characterized by *Crania tuberculata* Nilsson. Rosenkrantz (1964) reviewed *Crania* species in Poland, and on page 515 he erected the new subgenus *Danocrania*, with *Crania tuberculata* Nilsson as type species (within which he included *C. brattenburgicus* Schlotheim). In the synonymy Rosenkrantz commented that Hoeninghaus' 1828 description of *C. tuberculata* was based on Schlotheim's specimens from 'Copenhagen' (certainly there was collaboration between these authors, and Schlotheim did not die until 1832). Furthermore, in a footnote on page 514, Rosenkrantz deplored Carlsson's 1958 reintroduction of Schlotheim's name because, as he pointed out, *tuberculata* had been used for 132 years; a label written by Schlotheim with his specimens in the Humboldt University Museum, Berlin, shows that Schlotheim had himself accepted Nilsson's name in place of *brattenburgicus*, and finally Rosenkrantz pointed out that *C. tuberculata* had become adopted as the name of a zone in the Upper Danian.

8. *Danocrania* Rosenkrantz, 1964, is now an accepted genus with *C. tuberculata* as type species.

9. In view of the poor description of *Craniolites brattenburgicus* Schlotheim, 1820, and its lack of use for over 150 years, other than by three connected publications in the mid-1950s, we propose the suppression of the name. In contrast, the description of *Crania tuberculata* Nilsson, 1826 is full and well illustrated; his name was accepted by contemporary authors including Schlotheim, and has remained in use ever since. *C. tuberculata* is a species giving its name to a late Danian zone and it has become the type species of *Danocrania* Rosenkrantz, 1964. Thus to allow the reintroduction of Schlotheim's name would be highly confusing to palaeontologists and stratigraphers.

10. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to suppress the generic and specific names *Craniolites* and *brattenburgicus* Schlotheim, 1820, and any emendations, for the purpose of the Principle of Priority;
- (2) to place on the Official List of Specific Names in Zoology the name *tuberculata* Nilsson, 1826, as published in the binomen *Crania tuberculata*;
- (3) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Craniolites* Schlotheim, 1820, as published in the binomen *Craniolites brattenburgicus*, and as suppressed in (1) above;
- (4) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *brattenburgicus* Schlotheim, 1820, as published in the binomen *Craniolites brattenburgicus*, and as suppressed in (1) above.

REFERENCES

- CARLSSON, J. G. 1958. Le Genre *Crania* du terrain crétacé de la Suède. *Lunds Univ. Ars. N.F. Avd.* 2, Bd. 45, pp. 1–32.
- HOENINGHAUS, F. W. 1828. *Beitrag zur Monographie der Gattung Crania*. Schüller, Krefeld. 12 pp.
- KONGIEL, R. 1958. Sur les radioles des Echinides des couches à *Crania tuberculata* Nilss. à Borszew près de Sochaczew. *Prace Muzeum Ziemi*. vol. 2, pp. 17–27.
- KRUYTZER, E. M. 1969. Le genre *Crania* du Crétacé supérieur et du Post-Maastrichtien de la province de Limbourg Néerlandais (Brachiopoda: Inarticulata). *Publ. Natuurhist. Genootschap. Limburg*. vol. 19, pp. 1–42.
- KRUYTZER, E. M. & MEIJER, M. 1958. On the occurrence of *Crania brattenburgica* (v. Schlotheim 1820) in the region of Maastricht (Netherlands). *Natuurhist. Maandbl.*, vol. 47, pp. 135–141.
- LUNDGREN, B. 1885. Undersökning-ar öfver brachiopoderna i Sveriges kritsystem. *Lunds Univ. Ars.*, vol. 20, pt. 4, 72 pp.
- NILSSON, S. 1826. Brattensburgspenningen (*Anomia craniolaris* Lin.) och dess samslägt ingår i zoologiskt och geologiskt afseende undersökte. *K. svenska VetenskAkad. Handl.* (1825), pp. 324–328.
- 1827. *Petrificata suecana formationis Cretaceae. Londinim Gothorum*, pt. 1, pp. 1–39. Lund.
- RETZIUS, A. J. 1781. *Crania* order Todtenkopfs-Muschel. *Schrift. Berlin Ges. Naturforsch. Freunde*, vol. 2, pp. 66–76, pl. 1.
- ROSENKRANTZ, A. 1964. Note on some *Cranias* from central Poland. *Acta Paleontol. Polonica*, vol. 5, pp. 241–272.
- SCHLOTHEIM, E. F. VON. 1820. *Die Petrefactenkunde auf ihrem jetzigen Standpunkte*. vol. 1, Gotha. 388 pp.
- SCHMIDT, F. C. 1818. Versuch über die beste Einrichtung zur Aufstellung... Gotha. 252 pp.
- WIND, J. 1953. Kridtaflejringer i Jylland. *Flora og Fauna*, vol. 59, pp. 73–84.